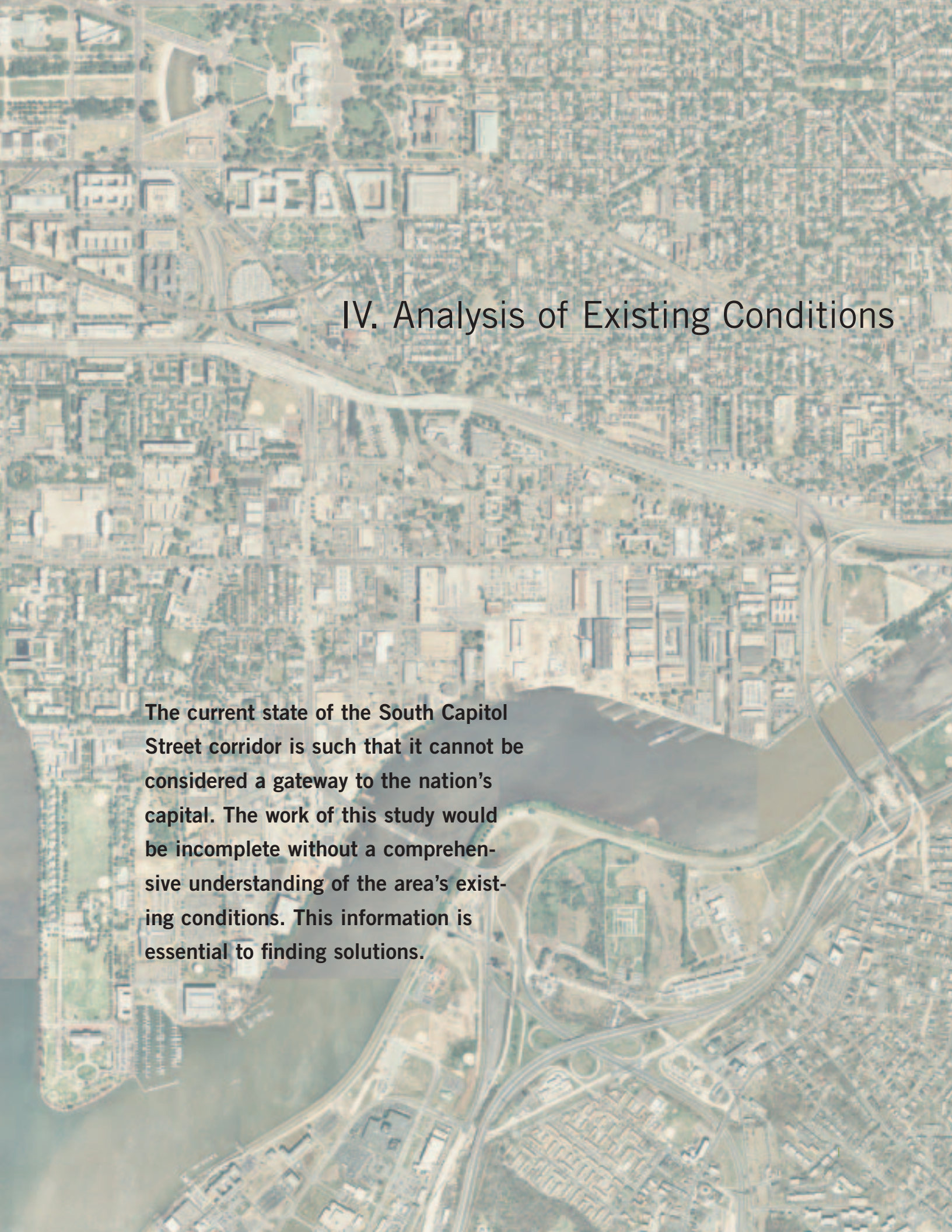


IV. Analysis of Existing Conditions

The current state of the South Capitol Street corridor is such that it cannot be considered a gateway to the nation's capital. The work of this study would be incomplete without a comprehensive understanding of the area's existing conditions. This information is essential to finding solutions.

The South Capitol Gateway and Corridor Improvement Study **began with the** ***Existing Conditions Analysis,*** **completed in early 2003. This document includes technical data that underscores the need to make fundamental changes to South Capitol Street's transportation infrastructure.**

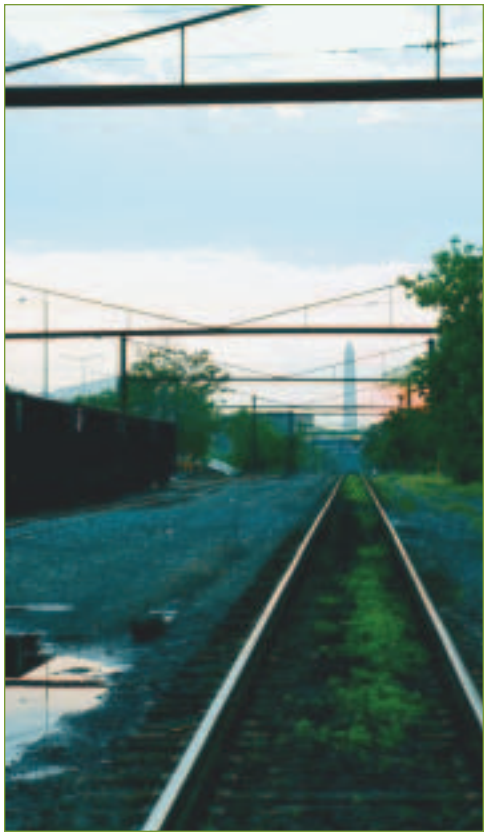
The findings of the Existing Conditions Analysis are summarized in this section. The entire document is available on the District of Columbia Department of Transportation's web site.

http://ddot.dc.gov/information/documents/frames/south_capitol/existing_conditions.shtm

IV. Analysis of Existing Conditions

The view up South Capitol Street has become an infamous symbol of failed post-World War II planning and transportation policies. This bleak vista, however, only begins to suggest the problems within the study area. Because the freeway system proposed for the District of Columbia was never finished, South Capitol Street and the Southeast-Southwest Freeway are incomplete fragments of that transportation network. Despite the massive effort to construct the freeway and make South Capitol Street an arterial thoroughfare to handle high traffic volumes, congestion is pervasive and gets worse each year.

To many, the experience of traveling on South Capitol Street is visually displeasing. However, its inability to function both as a multimodal local street and as a regional transportation artery is equally problematic. The first step toward creating the South Capitol Street gateway requires a thorough documentation and analysis of the corridor's existing conditions.



Railroad tracks along the Virginia Avenue alignment with Washington Monument to the northwest

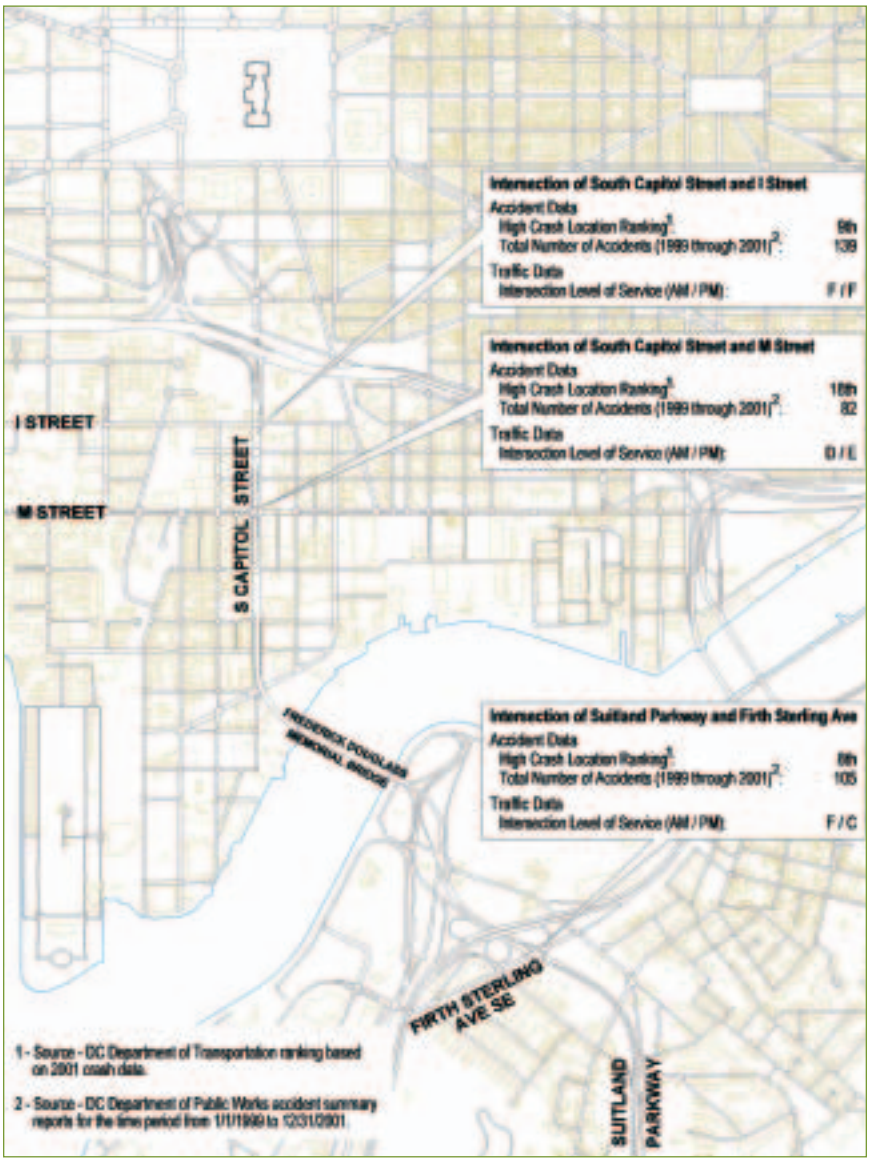


Diagram showing problem intersections along the South Capitol Street corridor

The *South Capitol Gateway and Improvement Study Existing Conditions Analysis*, which is summarized here, documents the corridor's physical and sociological characteristics. This includes traffic data, information on local communities, an inventory of park properties, the potential of encountering hazardous materials, and the location of cultural resources and utilities. Analysis of this data will inform the next steps in the process that will ultimately change South Capitol and adjacent streets into a working transportation network that will benefit local neighborhoods, the city, and the Metropolitan Washington Region.

Abandoned substation from the Pennsylvania Railroad near the intersection of South Capitol and Eye Streets SE

View underneath Southest Freeway's elevated ramps

South Capitol Street and Southeast Freeway with U.S. Capitol to the north

South Capitol Street reflects past efforts to make it a freeway. By design, its primary function is to carry traffic into and out of the District; other qualities have been sacrificed to this single purpose. The street is lined with concrete barriers that block cross streets, separate neighborhoods, and present a forbidding image to travelers and neighbors alike. South Capitol Street does not provide for public transportation and does not welcome pedestrians or bicyclists. Poor design characteristics create hazardous conditions for those who use the street.

One of the most important crossings of the Anacostia River, the Frederick Douglass Memorial Bridge, carries almost 70,000 vehicles on a typical weekday. Most of those vehicles are traveling between I-295 east of the Anacostia River and downtown Washington or beyond.

New Jersey Avenue SE and Southest Freeway

South of the U.S. Capitol, elevated railroad tracks and the Southeast-Southwest Freeway create a barrier that separates Capitol Hill from the city to the south. South Capitol Street's interchange with the Southeast-Southwest Freeway is a tangle of highway ramps that bracket the street, interrupting the sidewalks and obstructing access to nearby neighborhoods.

Eye Street is the first local street that crosses South Capitol Street south of the freeway. The freeway ramps make this intersection complex. Southbound traffic from the freeway encounters a traffic signal and a right-turn-only lane. Northbound traffic must weave across several lanes to reach the freeway ramps. Because of this complexity, this intersection is congested during peak traffic periods. Inadequate signs and narrow lanes contribute to the hazards at this intersection, which is ranked the ninth worst in the District because of its high number of right-angle and rear-end collisions.

New Jersey Avenue SE north of Southeast Freeway

New Jersey Avenue SE south of Southeast Freeway

Pedestrian walking along South Capitol Street near Eye Street SE

Cyclist attempting to turn onto South Capitol Street from Eye Street SE

Although traffic that merges from the Southeast-Southwest Freeway is brought to an abrupt halt at Eye Street, it is immediately encouraged to accelerate as South Capitol Street approaches M Street and dips beneath it. High volumes of turning traffic and short sight distances contribute to this intersection's ranking as the 18th worst accident location in the District of Columbia.

South of O Street, South Capitol Street approaches the Frederick Douglass Memorial Bridge on an elevated viaduct that towers over its surroundings. The viaduct was built to pass over a now-unused railroad spur in Potomac Avenue. All cross streets are blocked to both cross traffic and pedestrians between M Street and the obsolete viaduct.

The bleak condition of South Capitol Street is paralleled by that of New Jersey Avenue SE. Although one block near the Capitol is lined with trees and handsome Victorian rowhouses fronted with wrought-iron fences, most of the avenue is dominated by parking lots and abandoned buildings.

South Capitol's underpass below the intersection at M Street

Concrete plant east of South Capitol Street along the Anacostia River

Residential neighborhoods lie west of South Capitol Street and east of New Jersey Avenue. Some of the neighborhoods have low-income and minority residents, making environmental justice an especially important concern. Randall Recreation Center, which provides both open space and a place for active sports, is west of South Capitol Street between the freeway and Eye Street.

The Navy Yard Metrorail station is close by, with an entrance at M and Half Streets SE. The Southeast Division Metrobus garage is also located at this intersection, although the Washington Metropolitan Area Transit Authority is seeking to relocate its function because the garage is too small.

Present land use along South Capitol Street is mostly commercial. Warehouses, gas stations, fast-food restaurants, and a few small businesses line the blocks between the Southeast-Southwest Freeway and the Anacostia River. South of Potomac Avenue, land is either used for industrial purposes or vacant.

Several historic resources in this area must be preserved. The L'Enfant Plan is on the National Register of Historic Places, so the street pattern that it defines must be maintained. Saint Vincent de Paul Church at M Street and South Capitol Street is an important cultural resource and the rowhouses on Carrollsburg Place are historic.

Frederick Douglass Memorial Bridge looking toward the Navy Yard from the east of the Anacostia River

The Frederick Douglass Memorial Bridge is a utilitarian structure with little architectural or historic merit. The odd number of traffic lanes—three inbound and two outbound—are the result of a 1975 widening. Pedestrians and bicyclists share the narrow walkways on both sides. The center span of the bridge swings open to allow river traffic to pass.

The bridge is in poor structural condition and will soon require replacement. The District Department of Transportation plans to carry out critical safety-related rehabilitation and preventive maintenance to extend its life approximately fifteen years.

Frederick Douglass Memorial Bridge steel section loss

Frederick Douglass Memorial Bridge failed bearing plate at southeast abutment

Situated east of the Anacostia River, the interchange of South Capitol Street, Suitland Parkway, and I-295 is a complex maze of ramps and connector roads. The interchange is functionally deficient, confusing to use, and unattractive. Roadways that should provide access to the waterfront block it instead.

The I-295 interchange includes unnecessary and duplicate roadway connections. These inefficiences and redundancies consume several acres of land. The complexity of the interchange makes it difficult for drivers to navigate. The problem is compounded by inadequate signage. Although complex, the interchange is also incomplete. There is no ramp between southbound I-295 and northbound South Capitol Street. Howard Road substitutes for this missing link by conducting traffic onto a local street.

Intersection at Firth Sterling Avenue and Martin Luther King, Jr. Avenue, which has the highest fatality rate in the District of Columbia

Two streets, Firth Sterling Avenue and Martin Luther King, Jr. Avenue, provide the only access across Suitland Parkway in this area. The intersection of the Suitland Parkway and Firth Sterling Avenue forces high-speed traffic from the parkway to stop. The sight distance for approaching traffic is short and signage is inadequate. These factors cause it to be the intersection with the 8th highest accident rate in the District. More importantly, it has the highest fatality rate of any District intersection. Rear-end accidents are the most common. Accidents involving pedestrians are especially frequent. Martin Luther King, Jr. Avenue is grade separated from the parkway, so it allows safe crossing but this intersection permits no access between the neighborhoods and the parkway.

The corridor has significant utilities that could limit the locations of new transportation facilities but may also provide opportunities for reconstruction coordinated with a new South Capitol Street. There are water mains, sewers, and power transmission lines under many streets. Three 60-inch sewer siphons run under the Anacostia River, connecting pumping stations on both banks. The Capitol Power Plant, which sits between South Capitol Street and New Jersey Avenue, is a coal-powered plant that provides steam heating and cooling for the Capitol complex. An electrical generating plant on Buzzard Point operates during peak electricity demand periods and uses fuel oil. An abandoned electrical substation is located east of South Capitol Street and south of the Southeast-Southwest Freeway.

Construction in the corridor would probably encounter hazardous materials because of the industrial history of the surrounding area and the presence of underground storage tanks.